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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,345	06/07/2000	Masaaki Konno	Q59303	8129

7590 03/24/2004
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EXAMINER

GIBBS, HEATHER D

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 03/24/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,345

Applicant(s)

KONNO, MASAAKI

Examiner

Heather D Gibbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. The amendment filed on 2/23/2004 has been entered and made of record.
Currently, claims 1-28 are pending.

Response to Arguments

2. Applicant's arguments filed have been fully considered but they are not persuasive. Applicant argues that Suzuki fails to teach of the optical member as discussed in claim 1 as it does not emit light onto the original. Upon further consideration, Examiner finds (in Suzuki) the light being emitted onto the original by light emitting diode unit 13. See Col 4 Lines 9-34. The CCD sensor 3 emits light onto the original document 1.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-28 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The means in which the light emitting element is controlled is critical or essential to the practice of the invention, but not included in the

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claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188

USPQ 356 (CCPA 1976). Applicant does not sufficiently disclose in the specification and/or claims the how the light emitting element is controlled.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1,4 and 8-11,13-14,16-19,21-24,26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (US 4,930,008).

Considering claim 1, Suzuki discloses an image reading device for reading an image while conveying an original on which the image is recorded, comprising: a plurality of light emitting element units 12,13R and 13Y, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being linearly disposed along the first direction; an optical member 4 for irradiating light emitted from said plurality of light emitting element units across at least a substantially entire width of the original in the first direction (Col 3 Lines 66-68 and Col 4 Lines 1-8); and photoelectric conversion elements 3 (which include 3a) are disposed in correspondence with said plurality of light emitting element units, receive light that is one of transmitted through and reflected from the image, and conduct photoelectric conversion of the received light (Col 3 Lines 61-66), wherein the image is read while at least one original is conveyed, the original having a width dimension corresponding to a width dimension or one of said plurality of light

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emitting element units or a combined width dimension of at least two of said plurality of light emitting element units (Col 4 Lines 4-8); wherein at least one light emitting element for emitting light is selected among said plurality of light emitting element units in accordance with at least one of a first direction dimension of the original, a number of originals and a magnification at which the original is to be read (Col 3 Lines 61-66). [The CCD sensor is in accordance with the dimension of the original].

It is inherent that the optical member be the entire width of the original in order to irradiate light from the plurality of light emitting elements.

Regarding claim 4, Suzuki teaches of an image reading device for reading an image while conveying an original on which the image is recorded, comprising: a plurality of light emitting element units 12,13R, 13Y, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being disposed along the first direction, and light emission of said plurality of light emitting element units being respectively separately controlled(Col 4 Lines 35-50); an optical member 4 for guiding light emitted from each of said plurality of light emitting element units such that the light is irradiated to the original (Col 3 Lines 66-68 and Col 4 Lines 1-8); an original carrier 7 for positioning the original at a predetermined position and conveying the original (Col 3 Lines 55-61 and Col 5 Lines 18-30); and a light receiving section 3 (which includes 3a) for receiving light that is one of transmitted through and reflected from the original (Col 3 Lines 61-66).

Claim 8 is representative of Claims 1 and 4 and hence is rejected for the same reasoning.

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Regarding claim 9, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the (number of conveyed) originals which are conveyed in parallel (Col 3 Lines 55-61 and Fig 4).

Considering claim 10, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first direction dimension of the conveyed original (Col 3 Lines 61-68 and Col 4 Lines 1-8 and Fig 4).

With regard to claim 11, Suzuki teaches wherein said optical member is formed by a plurality of light-guiding members which are provided at positions respectively corresponding to position of said plurality of light emitting element units, and said optical member guides the emitted light to a vicinity of the original and causes the emitted light to be continuous across at least the substantially entire width of the original and to be free of boundary lines (Col 3 Lines 66-68 and Col 4 Lines 1-4).

Considering claim 13, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first direction dimension and the number of originals which are conveyed in parallel (Col 3 Lines 55-66 and Fig 4).

Regarding claims 14,19,24, Suzuki teaches wherein said photoelectric conversion elements comprise a three-line charge coupled device (CCD) (Col 5 Lines 18-30).

Considering claims 16,21,26, Suzuki teaches wherein each of said plurality of light emitting element units comprises a LED chip group (Fig 5).

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Regarding claims 17,22,27, Suzuki teaches wherein an amount of light output from each of said plurality of light emitting element units separately controlled (Col 4 Lines 35-50).

Regarding claims 18,23,28, Suzuki teaches wherein said light emitting emission is respectively controlled in accordance with a size of the originals and density of said image (Col 4 Lines 4-8;Col 7 Lines 1-37)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 4,930,008) in view of Moriguchi (US 4,490,740).

Suzuki teaches of the image reading device as discussed above in claim 1, but fails to particularly point out wherein said optical member is formed by a plurality of light-guiding members, which are provided at positions respectively corresponding to positions of said plurality of light emitting element units, and said optical member guides the emitted light to be continuous across at least the substantially entire width of the original and to be free of boundary lines.

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Moriguchi teaches of a reading device wherein the optical member consist of light guides 13. The light guides 13, optical fibers, are set behind a color filter for passing red (R), blue (B), and green (G) light. The light output from the bundle of 13 is substantially linearly aligned for a length, which is substantially equal to the maximum width of originals used.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Moriguchi's optical member in the image-reading device of Suzuki. Suzuki's image reading device would easily be modified to include Moriguchi's optical member so the light guides can spread in the form of a sector (position) so that the output ends can confront the platen, as taught by Moriguchi.

Specification

9. Claims 16,21,26 are objected to because of the following informalities: change "an LED chip" to —a LED chip—. Appropriate correction is required.

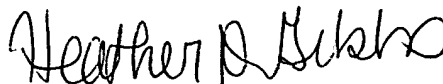
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather D Gibbs whose telephone number is 703-306-4152. The examiner can normally be reached on M-F 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Heather D Gibbs
Examiner
Art Unit 2622

hdg



EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER